



## **HERBICIDE USE NEAR OPEN BODIES OF WATER (July 2001)**

All surface water must be protected from herbicide entry. Specific herbicide application restrictions apply when spraying within 30 horizontal metres of defined open bodies of water. Restrictions are intended to protect riparian areas and water quality. Restrictions do not apply to land where cultivation has been allowed to encroach within 30 horizontal metres of an open body of water. This includes agricultural crops, pasture, improved range, and lawns or other ornamental plantings.

### **Defined Open Bodies of Water**

The definition of an open body of water includes the **bed and shore** of natural water bodies such as lakes, rivers, and streams. A number of man-made water bodies, roadside ditches and some natural wetlands (wetlands <10 acres completely surrounded by private land and wetlands <1 acre on public land) are excluded from the definition of open body of water. The bed and shore is defined as land that is or has been covered by water to the extent that no vegetation grows on the land or the vegetation that grows is aquatic vegetation that must be partially submerged in water for part of its life cycle to survive.

### **Herbicide Restrictions Near Open Bodies of Water**

The *Environmental Code of Practice for Pesticides* specifies restrictions for herbicide use near open bodies of water. Anyone wishing to perform herbicide applications that are not identified in the *Environmental Code of Practice for Pesticides* may apply for a Special Use Approval.

The *Environmental Code of Practice for Pesticides* requires that:

- herbicide applications must be conducted under the supervision of a certified pesticide applicator.
- herbicides must not be applied within 250 metres upstream of any surface water intake of a waterworks system.
- all herbicide applications must be conducted as part of an integrated vegetation management program with the objective of controlling target vegetation.
- herbicide applications must be made selectively using a backpack sprayer, a pump-sprayer, a hand-gun sprayer, or an application method that treats individual plants.

**Herbicide restrictions 1-5 horizontal metres from the bed and shore of an open body of water (maximum area receiving herbicide deposition is 10% within any 100 square metres in any one calendar year)**

If a federal pesticide label indicates that the herbicide must not be applied a greater distance from an open body of water, the product label must be followed.

Herbicide applications in the 1-5 metre zone are limited to noxious or restricted weed control – **no brush control applications are allowed.**

Herbicides in the 1-5 metre zone are limited to:

- **chlorsulfuron** (Glean – Telar use for total vegetation control is not allowed)
- **clopyralid**
- **glyphosate**
- **metsulfuron-methyl**
- **triclopyr** (Garlon – 4 L/ha maximum)

**Herbicide restrictions 5- 30 horizontal metres from the bed and shore of an open body of water (maximum area receiving herbicide deposition is 30% within any 100 square metres in any one calendar year)**

If a federal pesticide label indicates that the herbicide must not be applied a greater distance from an open body of water, the product label must be followed.

Brush control herbicide applications are allowed in the 5-30 metre zone in addition to noxious or restricted weed control.

Herbicides in the 5-30 metre zone are limited to the herbicides allowed in the 1-5 metre zone in addition to:

- **2,4-D** (when used up to a maximum application rate of 1.2 kg active ingredient per hectare)
- **dicamba** (when used up to a maximum of 1.2 kg active ingredient per hectare)
- **dichlorprop** (when used up to a maximum application rate of 1.2 kg active ingredient per hectare)
- **MCPA** (when used up to a maximum application rate of 0.675 kg active ingredient per hectare)
- **triclopyr** (to maximum label rate – **applied by ground only**)

### **Ensuring Compliance With Code Limits.**

- Check the coverage indicator diagrams on page 4 to help estimate the percentage of land area that needs to be treated.
- Use a label application rate that is consistent with active ingredient limits. The following formula converts active ingredient rates to label application rates (assuming 30% of area is treated). A higher application rate can be used if less area is being covered **provided that maximum label rates are not exceeded.** Examples are provided on page 5.



Maximum active ingredient application rate (kg/ha)	X	1,000gms/L	= Maximum product application rate (L/ha)
<hr/> gms active ingredient/L of product			

- Use the highest water volume recommended on the product label or recommended by the product manufacturer. It is easier to ensure adequate coverage without exceeding application rate limits if higher water volumes are used. Check the amount of spray solution being released frequently to ensure that correct deposition is being achieved.

#### **Spray Volume Used Per Hectare (converted to 100 square metres):**

- 100 L/ha = 1.0 L spray solution/100 square metres
- 150 L/ha = 1.5 L spray solution/100 square metres
- 200 L/ha = 2.0 L spray solution /100 square metres
- 500 L/ha = 5.0 L spray solution / 100 square metres
- 1000 L/ha =10.0 L spray solution / 100 square metres

#### **Other Herbicide Applications Regulated By the *Environmental Code of Practice for Pesticides***

**Purple Loosestrife** (*Lythrum salicaria*) may be treated with triclopyr or glyphosate applied selectively provided that no herbicide is deposited closer than 1 horizontal metre from standing water; and no more than 10 percent of any 100 square metres of land closer than 1 metre from an open body of water receives treatment in any calendar year.

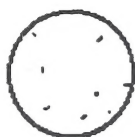
**Forest Regeneration Sites** may be treated with glyphosate applied selectively or non-selectively by aircraft or ground equipment provided that glyphosate is not deposited within 5 horizontal metres from an open body of water.

**Non-Vegetated Developed Areas** such as maintained trails, roads, vehicle parking lots, railway ballasts, and industrial sites such as flare stacks, pump sites, equipment yards, and electrical substations may be treated with glyphosate selectively or non-selectively by ground application equipment over the entire area that is to be maintained non-vegetated.

**Railway Ballasts** may be treated with imazapyr provided that no herbicide is deposited within 15 horizontal metres of an open body of water.

**Shoreline Rip-Rap** may be treated with glyphosate provided that no herbicide is deposited closer than 1 horizontal metre from an open body of water; and no more than 30 percent of the land within any 100 square metres of the treatment area receives treatment in any calendar year.

**PICTORIAL REPRESENTATIONS OF LAND AREAS:  
HERBICIDE DEPOSITION MUST NOT EXCEED MAXIMUM AREAS  
IDENTIFIED IN THE CODE WITHIN ANY 100 SQUARE METRES**



1%



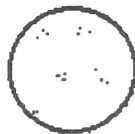
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Modified from Richard D. Terry  
and George V. Chilingar.

# PRODUCT APPLICATION RATE MAXIMUMS

Active Ingredient Maximums Identified in the Code	Product Concentration (g/L)	Maximum Application Rates for Products* (L/Ha) Based on Product Concentration and Area Treated		
		30% Treated Area	20% Treated Area	10% Treated Area
2,4-D:	450	2.7	4.0	8.1
	470	2.6	3.9	7.8
	560	2.1	3.1	6.3
1.2 kg ai/ha	660	1.8	2.7	5.4
Dicamba:				
1.2 kg ai/ha	480	2.5	3.7	7.5
MCPA:	400	1.69	2.5	5.1
	500	1.35	2.0	4.0
0.675 kg/ha				
MIXTURES				
Dicamba + MCPA	84 g/L dicamba + 336 g/L MCPA	2.0 (based on MCPA maximum)	3.0	6.0
Dichlorprop + 2,4-D	300 g/L dichlorprop + 282 g/L 2,4-D	4.0 (based on dichlorprop maximum)	6.0	12.0
(dichlorprop max = 1.2 kg a.i./ha)				

\*Maximum label application rates are based on a mathematical calculation and may exceed the maximum label application rates. Applications must conform with actual label application rates.



Date		Time		Place		Remarks	